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**ABSTRACT**

Disclosed herein are a fuel cell separator having gas supply grooves on one side or both sides thereof which is 5 molded from a composition composed mainly of an electrically conductive carbon powder and a binding agent, wherein the electrically conductive carbon powder is present such that its particles longer than 70  $\mu\text{m}$  at maximum in the major axis 10 direction and longer than 30  $\mu\text{m}$  at maximum in the minor axis direction along the vertical cross section of the fuel cell separator occupy more than 50% of the sectional area in the vertical direction, a process for production of the separator, and a polymer electrolyte fuel cell.

15 The present invention permits efficient mass production of high-quality fuel cell separators having high elasticity, high electrical conductivity, and good gas impermeability. The polymer electrolyte fuel cell in which all or part of the separators are those which pertain to the 20 present invention exhibits good gas seal performance and good impact resistance without possibility of separators cracking at the time of assembling.